

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/008878 A1

(51) International Patent Classification⁷: **H02P 6/18,**
7/295, 21/00

(21) International Application Number:
PCT/AU2004/000982

(22) International Filing Date: 22 July 2004 (22.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003903787 22 July 2003 (22.07.2003) AU

(71) Applicant and

(72) Inventor: MAIOCCCHI, Sergio, Adolfo [AU/AU]; 4 Lyn-
dhurst Court, Wattlegrove, NSW 2173 (AU).

(74) Agent: SPRUSON & FERGUSON; GPO BOX 3898,
Sydney, NSW 2001 (AU).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HN, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

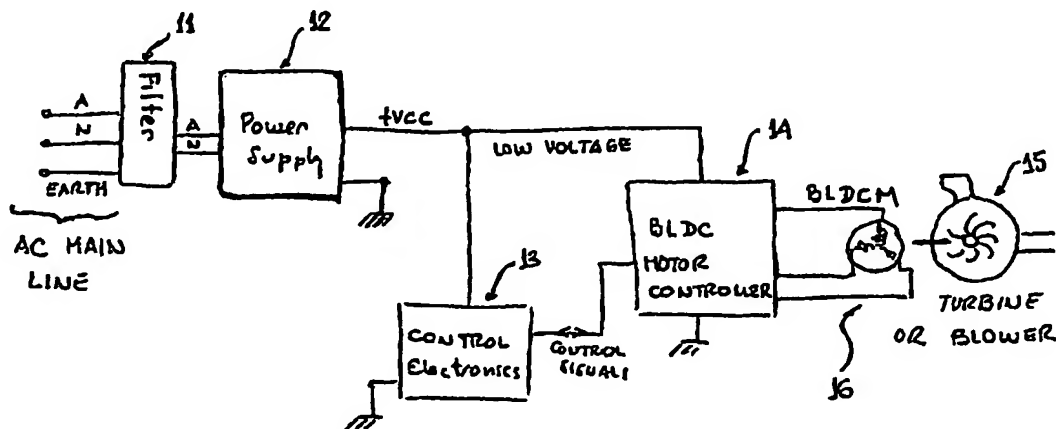
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM FOR OPERATING DC MOTORS AND POWER CONVERTERS



(57) Abstract: A system is disclosed for driving a DC motor (15) under conditions of a controlled average current. An inductive element may be arranged for connection in series with the DC motor. A switch (14) is preferably coupled to the inductive element for connecting and disconnecting a terminal of the inductive element from the voltage source. A diode may be arranged for connection in parallel with a combination of the inductive element and the DC motor arranged in series, with appropriate polarity so that current circulating through the inductive element circulates through the diode when the switch disconnects the terminal from the voltage source. A capacitor is arranged for connection in parallel with the motor, for limiting a resulting voltage over the motor or for storing charge depending on the embodiment of the invention. A device for measuring a current through the motor is provided, and a device (13) for controlling operation of the switch dependent upon the measured current in the motor is also provided. An airflow apparatus is also disclosed.

WO 2005/008878 A1